

**Late Cretaceous-Tertiary Turbidites, Assessment Unit 60210101**  
**Assessment Results Summary**

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. MMBNGL, million barrels of natural gas liquids. MFS, minimum field size assessed (MMBO or BCFG). Prob., probability (including both geologic and accessibility probabilities) of at least one field equal to or greater than the MFS. Results shown are fully risked estimates. For gas fields, all liquids are included under the NGL (natural gas liquids) category. F95 represents a 95 percent chance of at least the amount tabulated. Other fractiles are defined similarly. Fractiles are additive under the assumption of perfect positive correlation. Shading indicates not applicable]

Field Type	MFS	Prob. (0-1)	Undiscovered Resources												Largest Undiscovered Field (MMBO or BCFG)			
			Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)				F95	F50	F5	Mean
			F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean				
Oil Fields	10	1.00	2,725	11,664	26,455	12,745	5,095	22,597	55,639	25,514	284	1,316	3,531	1,532	578	2,135	6,637	2,654
Gas Fields	60						1,805	7,833	20,809	9,111	75	335	949	401	563	2,231	9,118	3,141
Total		1.00	2,725	11,664	26,455	12,745	6,900	30,430	76,447	34,625	359	1,651	4,480	1,933				

**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

**Forecast: Oil in Oil Fields**

**Summary:**

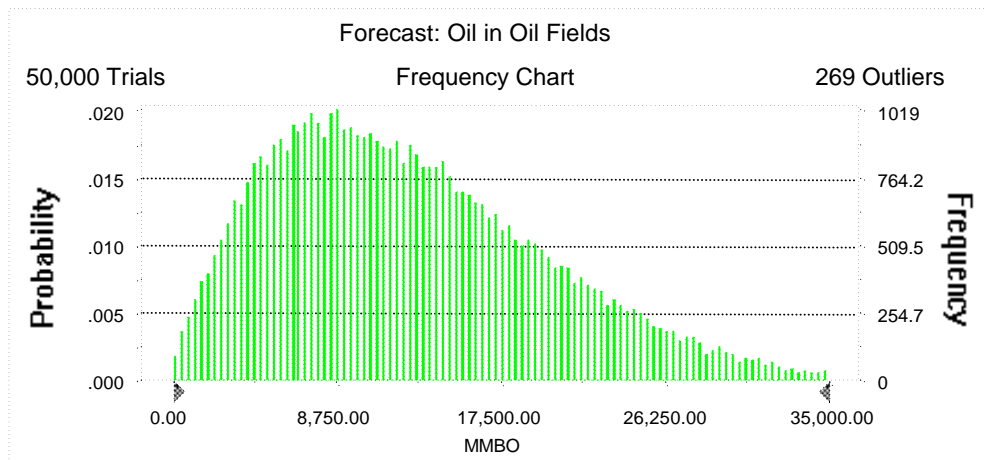
Display range is from 0.00 to 35,000.00 MMBO

Entire range is from 19.31 to 57,232.72 MMBO

After 50,000 trials, the standard error of the mean is 32.97

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	12,745.30
Median	11,663.62
Mode	---
Standard Deviation	7,371.85
Variance	54,344,163.88
Skewness	0.72
Kurtosis	3.26
Coefficient of Variability	0.58
Range Minimum	19.31
Range Maximum	57,232.72
Range Width	57,213.41
Mean Standard Error	32.97



**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

**Forecast: Oil in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	19.31
95%	2,725.29
90%	4,054.19
85%	5,133.26
80%	6,112.79
75%	7,046.16
70%	7,935.79
65%	8,842.18
60%	9,738.43
55%	10,690.53
50%	11,663.62
45%	12,673.78
40%	13,717.17
35%	14,793.68
30%	16,009.22
25%	17,349.99
20%	18,917.97
15%	20,722.25
10%	23,031.52
5%	26,454.87
0%	57,232.72

End of Forecast

**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

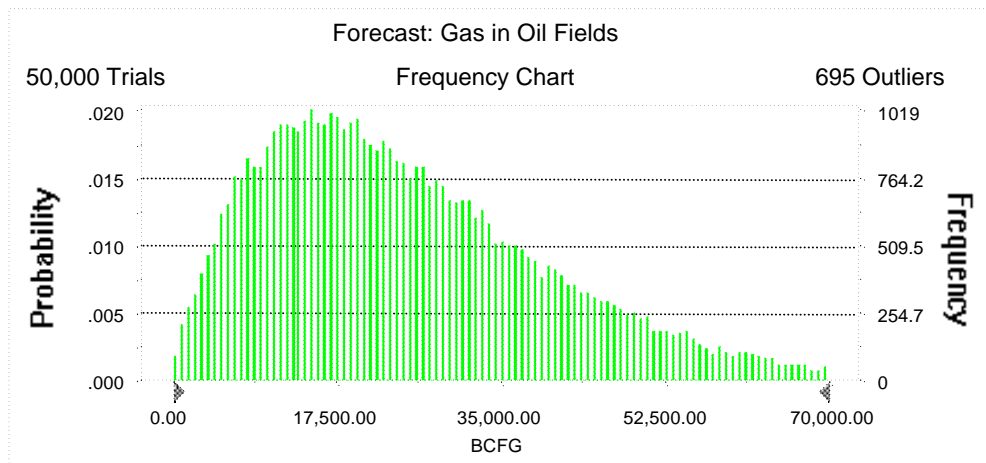
**Forecast: Gas in Oil Fields**

**Summary:**

Display range is from 0.00 to 70,000.00 BCFG  
Entire range is from 42.44 to 147,543.44 BCFG  
After 50,000 trials, the standard error of the mean is 71.24

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	25,514.06
Median	22,597.01
Mode	---
Standard Deviation	15,929.10
Variance	253,736,140.01
Skewness	0.98
Kurtosis	4.08
Coefficient of Variability	0.62
Range Minimum	42.44
Range Maximum	147,543.44
Range Width	147,501.00
Mean Standard Error	71.24



**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

**Forecast: Gas in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	42.44
95%	5,095.43
90%	7,577.39
85%	9,725.06
80%	11,636.80
75%	13,456.36
70%	15,217.57
65%	17,029.84
60%	18,804.88
55%	20,604.40
50%	22,597.01
45%	24,634.96
40%	26,803.79
35%	29,125.47
30%	31,690.30
25%	34,511.22
20%	37,965.15
15%	42,088.63
10%	47,515.41
5%	55,638.57
0%	147,543.44

End of Forecast

**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

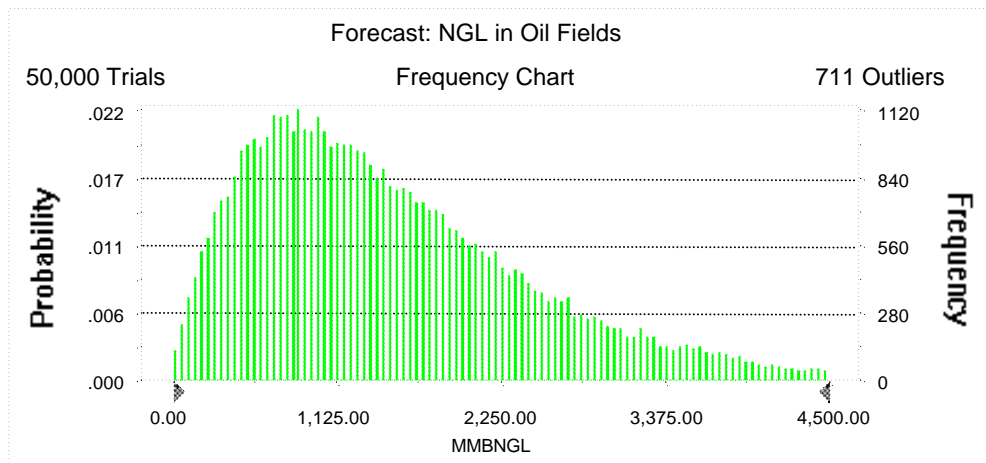
**Forecast: NGL in Oil Fields**

**Summary:**

Display range is from 0.00 to 4,500.00 MMBNGL  
Entire range is from 1.70 to 9,508.87 MMBNGL  
After 50,000 trials, the standard error of the mean is 4.59

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	1,532.40
Median	1,316.34
Mode	---
Standard Deviation	1,025.91
Variance	1,052,500.15
Skewness	1.22
Kurtosis	5.05
Coefficient of Variability	0.67
Range Minimum	1.70
Range Maximum	9,508.87
Range Width	9,507.17
Mean Standard Error	4.59



**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

**Forecast: NGL in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	1.70
95%	284.13
90%	433.42
85%	550.26
80%	664.30
75%	767.30
70%	872.69
65%	977.86
60%	1,085.06
55%	1,199.06
50%	1,316.34
45%	1,442.78
40%	1,579.80
35%	1,726.13
30%	1,884.02
25%	2,071.08
20%	2,284.59
15%	2,555.85
10%	2,923.59
5%	3,530.97
0%	9,508.87

End of Forecast

**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

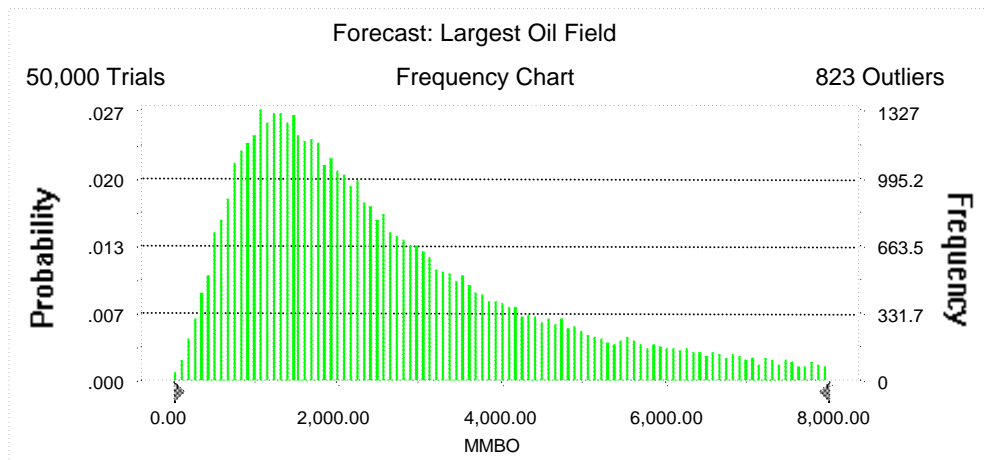
**Forecast: Largest Oil Field**

**Summary:**

Display range is from 0.00 to 8,000.00 MMBO  
Entire range is from 19.31 to 8,999.92 MMBO  
After 50,000 trials, the standard error of the mean is 8.28

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	2,654.11
Median	2,135.23
Mode	---
Standard Deviation	1,852.22
Variance	3,430,706.82
Skewness	1.19
Kurtosis	3.97
Coefficient of Variability	0.70
Range Minimum	19.31
Range Maximum	8,999.92
Range Width	8,980.61
Mean Standard Error	8.28





**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

**Forecast: Largest Oil Field (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	19.31
95%	577.79
90%	793.74
85%	968.15
80%	1,125.29
75%	1,280.13
70%	1,435.93
65%	1,593.75
60%	1,764.47
55%	1,942.94
50%	2,135.23
45%	2,342.19
40%	2,583.26
35%	2,856.45
30%	3,161.56
25%	3,540.01
20%	3,999.30
15%	4,597.24
10%	5,425.46
5%	6,636.72
0%	8,999.92

End of Forecast

**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

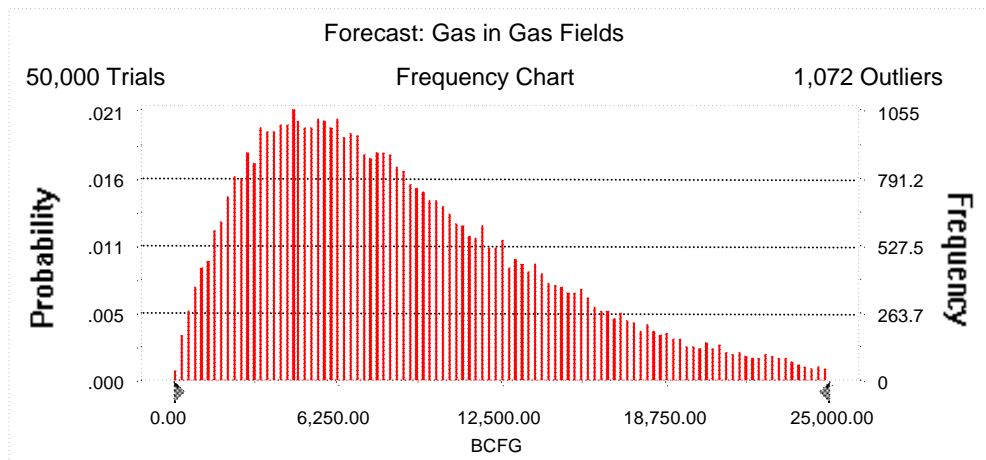
**Forecast: Gas in Gas Fields**

**Summary:**

Display range is from 0.00 to 25,000.00 BCFG  
Entire range is from 64.09 to 52,361.97 BCFG  
After 50,000 trials, the standard error of the mean is 27.05

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	9,110.99
Median	7,833.39
Mode	---
Standard Deviation	6,048.41
Variance	36,583,291.96
Skewness	1.25
Kurtosis	5.19
Coefficient of Variability	0.66
Range Minimum	64.09
Range Maximum	52,361.97
Range Width	52,297.88
Mean Standard Error	27.05



**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

**Forecast: Gas in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	64.09
95%	1,804.59
90%	2,656.63
85%	3,365.21
80%	4,006.51
75%	4,625.91
70%	5,240.30
65%	5,853.32
60%	6,480.71
55%	7,126.73
50%	7,833.39
45%	8,541.28
40%	9,322.32
35%	10,191.63
30%	11,158.25
25%	12,270.40
20%	13,549.33
15%	15,116.28
10%	17,230.98
5%	20,808.78
0%	52,361.97

End of Forecast

**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

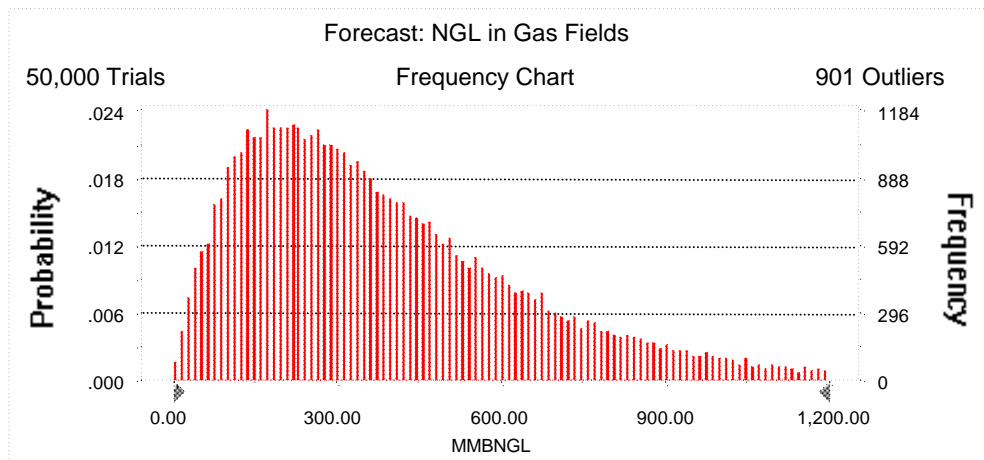
**Forecast: NGL in Gas Fields**

**Summary:**

Display range is from 0.00 to 1,200.00 MMBNGL  
Entire range is from 1.87 to 2,957.13 MMBNGL  
After 50,000 trials, the standard error of the mean is 1.27

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	400.81
Median	335.13
Mode	---
Standard Deviation	283.67
Variance	80,466.08
Skewness	1.48
Kurtosis	6.46
Coefficient of Variability	0.71
Range Minimum	1.87
Range Maximum	2,957.13
Range Width	2,955.25
Mean Standard Error	1.27



**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

**Forecast: NGL in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	1.87
95%	74.83
90%	110.09
85%	139.31
80%	167.31
75%	193.64
70%	220.71
65%	247.80
60%	275.46
55%	304.55
50%	335.13
45%	367.16
40%	403.44
35%	442.88
30%	486.26
25%	537.20
20%	598.12
15%	673.09
10%	778.59
5%	948.67
0%	2,957.13

End of Forecast

**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

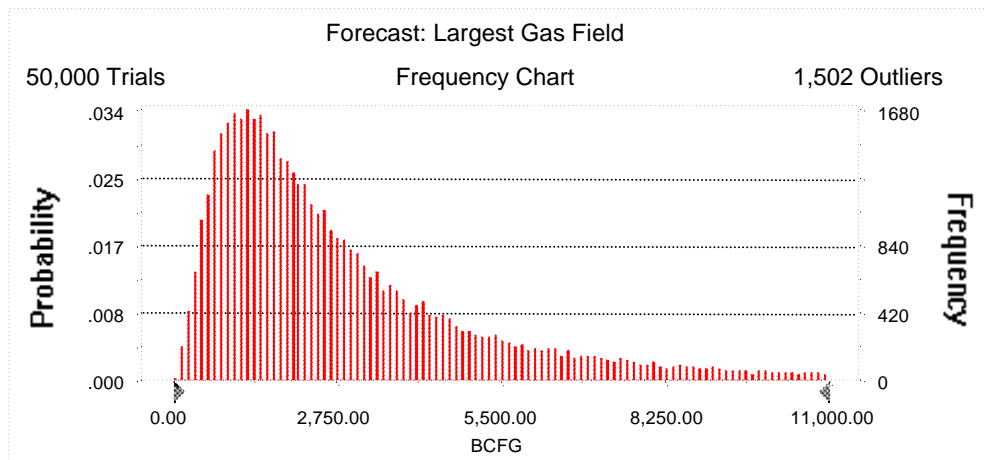
**Forecast: Largest Gas Field**

**Summary:**

Display range is from 0.00 to 11,000.00 BCFG  
Entire range is from 64.09 to 17,995.34 BCFG  
After 50,000 trials, the standard error of the mean is 12.73

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	3,140.55
Median	2,230.78
Mode	---
Standard Deviation	2,847.18
Variance	8,106,430.73
Skewness	2.13
Kurtosis	8.37
Coefficient of Variability	0.91
Range Minimum	64.09
Range Maximum	17,995.34
Range Width	17,931.25
Mean Standard Error	12.73



**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

**Forecast: Largest Gas Field (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	64.09
95%	563.37
90%	774.84
85%	951.35
80%	1,117.54
75%	1,280.92
70%	1,453.81
65%	1,626.23
60%	1,806.79
55%	2,008.66
50%	2,230.78
45%	2,474.25
40%	2,748.90
35%	3,068.00
30%	3,451.51
25%	3,925.99
20%	4,548.47
15%	5,410.21
10%	6,701.61
5%	9,117.89
0%	17,995.34

End of Forecast

**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

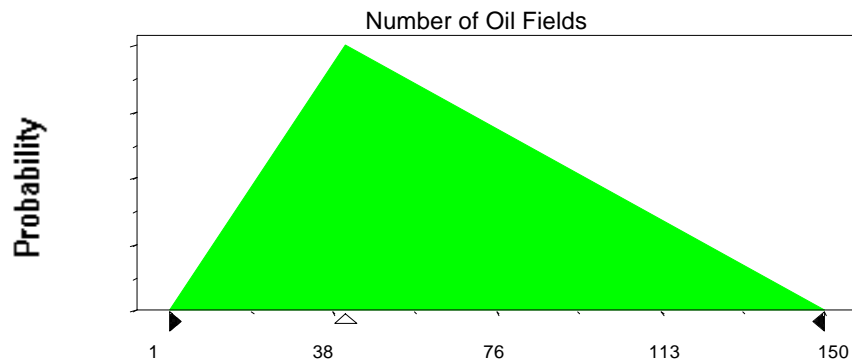
**Assumptions**

**Assumption: Number of Oil Fields**

Triangular distribution with parameters:

Minimum	1
Likeliest	41
Maximum	150

Selected range is from 1 to 150  
Mean value in simulation was 64



**Assumption: Sizes of Oil Fields**

Lognormal distribution with parameters:

Mean	205.12
Standard Deviation	816.07

Shifted parameters

215.12
816.07

Selected range is from 0.00 to 8,990.00

10.00 to 9,000.00

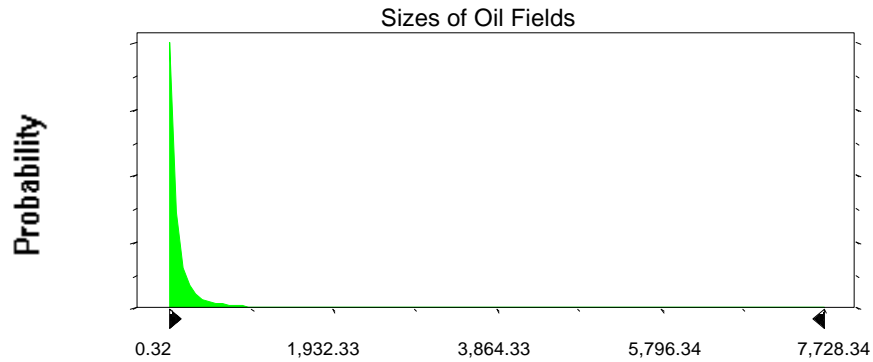
Mean value in simulation was 190.57

200.57



**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

**Assumption: Sizes of Oil Fields (cont'd)**



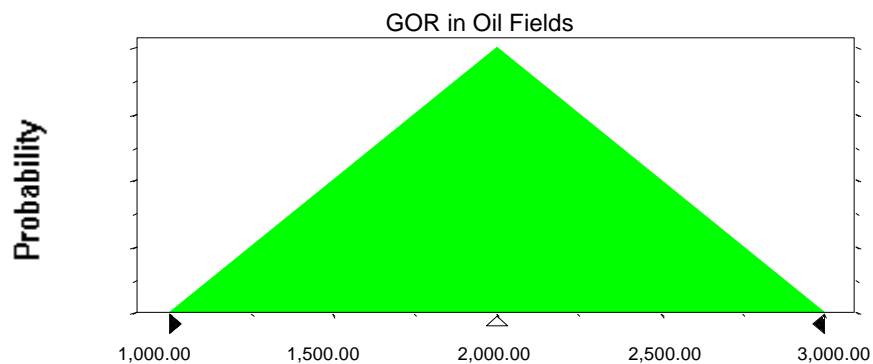
**Assumption: GOR in Oil Fields**

Triangular distribution with parameters:

Minimum	1,000.00
Likeliest	2,000.00
Maximum	3,000.00

Selected range is from 1,000.00 to 3,000.00

Mean value in simulation was 2,001.17



**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

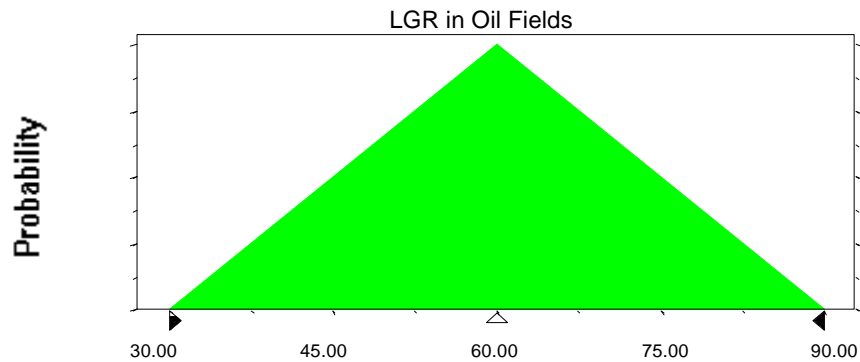
**Assumption: LGR in Oil Fields**

Triangular distribution with parameters:

Minimum	30.00
Likeliest	60.00
Maximum	90.00

Selected range is from 30.00 to 90.00

Mean value in simulation was 60.04



**Assumption: Number of Gas Fields**

Triangular distribution with parameters:

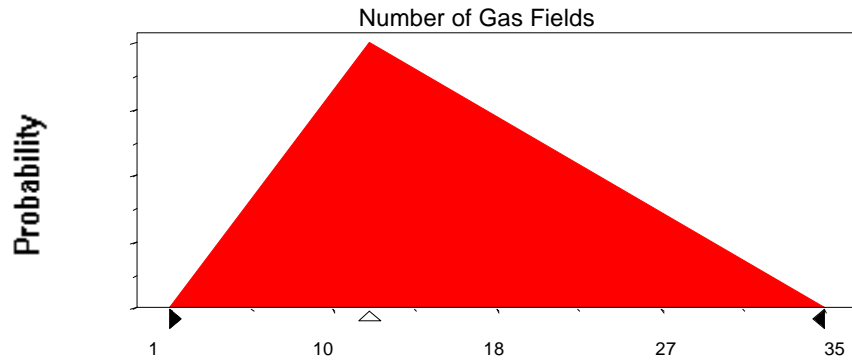
Minimum	1
Likeliest	11
Maximum	35

Selected range is from 1 to 35

Mean value in simulation was 16

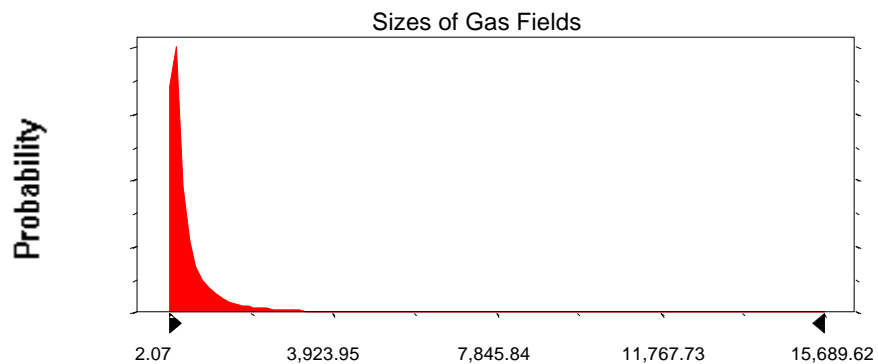
**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

**Assumption: Number of Gas Fields (cont'd)**



**Assumption: Sizes of Gas Fields**

Lognormal distribution with parameters:		Shifted parameters
Mean	545.61	605.61
Standard Deviation	1,561.27	1,561.27
Selected range is from 0.00 to 17,940.00		60.00 to 18,000.00
Mean value in simulation was 509.29		569.29



**60210101**  
**Late Cretaceous-Tertiary Turbidites**  
**Monte Carlo Results**

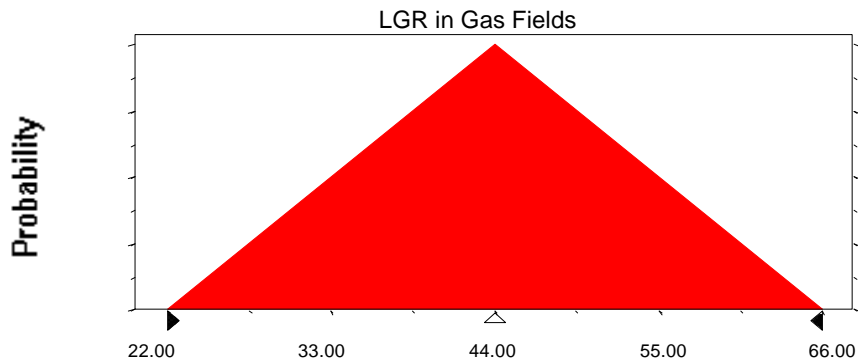
**Assumption: LGR in Gas Fields**

Triangular distribution with parameters:

Minimum	22.00
Likeliest	44.00
Maximum	66.00

Selected range is from 22.00 to 66.00

Mean value in simulation was 43.96



End of Assumptions

Simulation started on 11/1/99 at 14:14:49

Simulation stopped on 11/1/99 at 15:02:20